



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

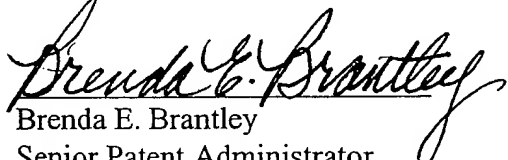
Applicant(s): Anastasios Melis et al.)
Serial No.: 09/748,690) Art Group: 1651
Filing Date: December 22, 2000) Examiner: V. Afremova
Title: Hydrogen Production Using Hydrogenase-) Atty. Dkt. No. NREL 99-29
Containing Oxygenic Photosynthetic)
Organisms)

CERTIFICATE OF MAILING UNDER 37 CFR § 1.8

I hereby certify that the following attached items:

- Amendment Under 37 CFR § 1.116 [9 pages]
- Postcard receipt

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NREL 99-29

The stamp of the U.S. Patent & Trademark Office hereon will acknowledge receipt of the following:

1. Certificate of Mailing Under 37 CFR 1.8
2. Amendment Under 37 CFR 1.116 [9 pages]

Re: Anastasios Melis et al.

SN 09/748,690

Filed: 12/22/00

Title: **Hydrogen Production Using Hydrogenase-Containing Oxygenic Photosynthetic Organisms**

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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant :	Anastasios Melis et al)	Atty Dkt. No. 99-29
)	
Serial No. :	09/748,690)	
)	Group Art: 1651
Filing Date:	December 12, 2000)	
)	Examiner: V. Afremova
Title:	Hydrogen Production Using)	
	Hydrogenase-Containing Oxygenic)	
	Photosynthetic Organisms)	

AMENDMENT UNDER 37 CFR §1.116

Commissioner For Patents
U.S. Patent & Trademark Office
P.O. Box 1450
Mail Stop Non-Fee Amendment
Arlington, VA 22313-1450

Sir:

In reply to the Office Action mailed August 8, 2003, which rejected the claims in the above-identified patent application, applicants respectfully request reconsideration based upon the amendments hereinafter set forth.

IN THE CLAIMS:

1. (Currently Amended) A reversible physiological process for temporal separation of oxygen evolution to avoid deactivation of hydrogenase in the presence of oxygen and sustain photosynthetic hydrogen production in cells of an algae microorganism, comprising:

(a) growing a culture of cells of algae microorganism photoheterotrophically in a Tris-acetate-phosphate medium under ~~illuminated~~ white fluorescence illumination conditions to accumulate an endogenous substrate;